Imagine a world without water

The human body can live more than a month without food… But immediately begins dying without water.

Your restaurants are no different… Like the human body, your restaurants cannot survive without quality water!
Since that is true...

Why do so many restaurants fail to take adequate steps to insure a continual flow of high quality water into their facilities?

We believe it is due to a lack of understanding of the TRUE cost of water.

That’s where you can make a big difference!
It’s Not Just Water!

The TRUE cost of water!

Presented by:

Randy Stroman, Manager, Strategic Accounts
Pentair Foodservice/Everpure

Keith Pennison, National Operations Manager
Pentair Foodservice/Everpure

Dave Dassoulas, President
HB Water Filtration Services
In this session...

Technology – The science of water
Resource – Discovering water as a business resource
Understanding – The cost of ignorance
Execution – Taking a leadership position in the industry
Technology – The science of water

- Composition
- Chemistry
- Cost
Technology — The science of water

• Composition
  – Water is odorless, colorless, tasteless and transparent
  – It exist in a solid state if frozen, a vapor state if heated, or in its normal liquid state — Only substance known to man that exists in all three states
  – Our primary source of water is precipitation (rain, snow, hail)
  – When it falls to earth, rain takes one of two paths
    • Absorbed by the soil
    • Runs off into streams, rivers, ponds, lakes and oceans
  – It then evaporates back into the air and the cycle begins again — The Hydrologic Cycle
The Hydrological Cycle

The Water Cycle

Water storage in ice and snow → Precipitation → Water storage in the atmosphere → Condensation → Evaporation

Evaporation → Evapotranspiration → Surface runoff → Infiltration → Ground-water discharge

Snowmelt runoff to streams → Streamflow → Freshwater storage → Spring

Ground-water storage → Water storage in oceans
Technology – The science of water

• Chemistry
  – Comprised of one part Oxygen and two parts Hydrogen – $\text{H}_2\text{O}$
  – Due to the presence of positive and negative charged ions, water acts as a magnet, attaching to nearly every substance it touches, making water the universal solvent
Technology – The science of water

• Chemistry

– Water is also prone to attract contaminants, considered unpleasant and even harmful to the human body
– Some contaminants effect the taste, odor and color of water, and are referred to as aesthetic
– Other contaminants are micro-organisms, called pathogens, which represent health risks
Technology – The science of water

• Chemistry
  – Possible pathogens include viruses, bacteria and protozoa, which include Giardia Lamblia and Cryptosporidium
  – Some Cryptosporidium is highly resistant to chlorine as a sanitizer

Documented US Cases

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
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<tbody>
<tr>
<td>2006</td>
<td>5,936</td>
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<tr>
<td>2007</td>
<td>11,170</td>
</tr>
<tr>
<td>2008</td>
<td>7,749</td>
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</tbody>
</table>

Source: Gideon Informatics
Technology – The science of water

• Cost of Water
  – Water treatment is the solution for water contaminants
  – Water treatment falls into several categories:
    • Chemical treatments – primarily at the municipal level
    • Filtration – municipal and localized
    • Ion Exchange – deionization, softening
  – The biggest challenge to effective treatment and sustainability is the fact that water in this country is so “cheap”
    – But that is rapidly changing…and it is going to force our industry to change our thinking
Technology – The science of water

• Cost of Water

– According to the Earth Policy Institute, over the past 5 years, municipal water rates have increased:
  • 27 % in the United States (7.3 % in 2008 alone)
  • 32 % in the United Kingdom
  • 45 % in Australia
  • 50 % in South Africa
  • 58 % in Canada
  • 400 % in Tunisia (in the last 10 years)
U.S. Water Costs 2008

Nationwide average water costs increased by 7.3%

<table>
<thead>
<tr>
<th>Highest Water Cost (per Kgal)</th>
<th>Highest Water &amp; Sewer Cost (per Kgal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boston, MA</td>
<td>Seattle, WA</td>
</tr>
<tr>
<td>$5.76</td>
<td>$14.28</td>
</tr>
<tr>
<td>Huntington, WV</td>
<td>Atlanta, GA</td>
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<tr>
<td>$5.61</td>
<td>$13.28</td>
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<tr>
<td>Pittsburgh, PA</td>
<td>Boston, MA</td>
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<td>$5.21</td>
<td>$12.96</td>
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<tr>
<td>Newport, NH</td>
<td>San Francisco, CA</td>
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<tr>
<td>$4.86</td>
<td>$12.76</td>
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<tr>
<td>San Francisco, CA</td>
<td>Portland, ME</td>
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<tr>
<td>$4.00</td>
<td>$11.67</td>
</tr>
<tr>
<td><strong>2008 US Average</strong></td>
<td><strong>+6.8% from 2007</strong></td>
</tr>
<tr>
<td><strong>$2.81</strong></td>
<td><strong>$7.08</strong></td>
</tr>
</tbody>
</table>

**Notables**: New Orleans +51.9%, St. Louis +32.4%, Fort Smith +29.6%, Sioux Falls +18.2%, Los Angeles +17.9%, Kansas City +16.3%, San Francisco +15.8%, Chicago +15.0%

Source: NUS Consulting Group, Marketwire 2008

This trend will force us to see water as a vital resource that must be managed
Resource — Discovering water as business resource

• Water is our most important resource
  – We tend take it for granted in this country
  – We turn on the tap and it’s always there
  – It’s still one of our best valued business expenses
  – Few businesses are thinking strategically about what happens if water becomes scarce
    • Water sustains our food chain and related industries
    • Water is vital to our manufacturing processes
    • Water is the key ingredient in the production of electricity
      – In fact, 39% of our fresh water supply is used to run our power plants
    • If water becomes scarce, restaurants are in trouble
Resource – Discovering water as business resource

• **Our worst fears are showing signs of materializing**
  – Coke and Pepsi both lost operating licenses in parts of India due to water usage issues, while other bottlers also faced stiff public opposition to new plant openings
  – Nestle’ Waters has spent millions fighting opposition to a proposed bottling plant in McCloud, CA, which would be the largest in the U.S.
  – Average municipal water prices have risen 30% since 2003
  – This crisis is quickly trickling down to the restaurant level
  – What should we do? **We need to stop being ignorant as an industry about water**…
Understanding – The cost of ignorance

• Webster’s Dictionary describes ignorance as, “A lack of knowledge, learning and information”

  – We are not intending to call anyone stupid…
  – We are simply saying that when it comes to total water management, as a vital business resource, most restaurant companies lack the knowledge, learning and information necessary to create meaningful and profitable change
Understanding – The cost of ignorance

• There are two important truths concerning ignorance…
  
  – First, “Ignorance is not bliss…it’s oblivion”
    • If the restaurant industry continues on its current path, we could reach a situation in the future where restaurants have to close because they can’t get enough water allocation to run their units or the cost is too exorbitant
  
  – Second, “Ignorance is a voluntary condition”
    • We can choose to ignore the warning signs, or we can exercise leadership to control our future
      – The answer is two-fold: Strategic Thinking and a Commitment to Training
Understanding – The cost of ignorance

• How to train your managers to understand their most valuable resource
  – It’s a matter of priorities – People don’t do what you expect, they do what you inspect
  – It’s a matter of profit – Managers will change their priorities when they understand the positive impact Total Water Management can have on their bottom-line
  – It’s a matter of planning – Good training doesn’t just happen, you have to plan to win
Understanding – The cost of ignorance

Four-Step Total Water Management Training Program

1. **Preparation** – Develop a Corporate Sustainability Action Plan and make it part of your regular training program

2. **Demonstration** – Allow managers to mirror your inspections and talk to them about what you are looking for and what you expect from their team

3. **Performance** – Leave the manager with a check list of items to manage and allow them time to build the new focus into their daily routine

4. **Follow-up** – Let the managers know that you will be back to check on their progress and involve their operations director in your Total Water Management Program
**Execution** — Taking a leadership position

**Sustainability Action Plan:**

1. **Measure** the company’s water footprint (i.e., water use and wastewater discharge) throughout your entire supply chain

2. **Assess** physical, regulatory and reputational risks associated with your water footprint

3. **Integrate** water issues into strategic business planning and corporate governance

4. **Engage** key stakeholders (local government, suppliers, and employees) as a part of water risk assessment, long-term planning and implementation program, to include restaurant level training and accountability
Thank You!